

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. Contract ID Code		Page 1 of Pages 7	
2. Amendment/Modification No. AMENDMENT 0003		3. Effective Date APR 14, 2005		4. Requisition/Purchase Req. No. NAAX1000-5-00002		5. Project No. (if applicable)	
6. Issued By NOAA's HIGH PERFORMANCE COMPUTING ACQUISITION OFFICE 1315 EAST WEST HIGHWAY, ROOM 9734 SILVER SPRING, MD 20190 Willam L. Voitek (301) 713-3525 ext 196				7. Administered By (If other than Item 6) Code			
8. Name and Address of Contractor (No., Street, County, and Zip Code) TO ALL INTERESTED PARTIES				(X)		9A. Amendment of Solicitation No. DG133A-05-RP-1038	
				X		9B. Date (See Item 11) Jan 13, 2005	
						10A. Modification of Contract/Order No.	
						10B. Date (See Item 13)	
Code		Facility Code					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input checked="" type="checkbox"/> The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended <input checked="" type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning <u>1</u> copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. Accounting and Appropriation Data (if required) \$							
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACT/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
(x) A. This change order is issued pursuant to: (Specify authority) The changes set forth in item 14 are made in the Contract Order No. in item 10A.							
B. The above numbered Contract/Order is modified to reflect the administrative changes (such as changes in paying office, appropriation date, etc.) Set fourth item 14, pursuant to the authority of FAR 43.103 (b)							
C. This supplemental agreement is entered into pursuant to authority of:							
D. Other (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return <input type="checkbox"/> copies to the issuing office.							
14. Description of Amendment/Modification (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
1. The purpose of this Amendment is to revise the Solicitation as follows:							
SECTION B							
The following is a summary of the revisions to Section B. Because of the number of changes, a revised Section B, in its entirety is attached to this Amendment and supersedes Section B in the RFP as revised by Amendment 0002.							
Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. Name and Title of Signer (Type or Print)				16A. Name and title of Contracting Officer (Type or Print)			
15B. Contractor/Offoror		15C. Date Signed		16B. United States of America		16C. Date Signed	
(Signature of person authorized to sign)				(Signature of Contracting Officer)			
NSN 7540-01-152-8070				30-105		STANDARD FORM 30 (REV. 10-83)	
PREVIOUS EDITIONS UNUSABLE				Prescribed by GSA FAR (48 CFR) 53.243			

B.2, Base Contract Period is defined as follows: “The Base Contract Period commences on the date of contract award and concludes at the end of the fourth year from acceptance of the initially delivered system unless extended an additional year by exercise of optional CLIN 0005A. If CLIN 0005A is exercised, the Base Contract Period shall continue for a period of five (5) years from acceptance of the initially delivered system.”

B.2, Option Contract Period is defined as follows: “The Option Contract Period commences on the effective date cited in the modification exercising the option and concludes at the end of the fourth year from acceptance of all system(s) initially delivered under the option unless extended an additional year by exercise of optional CLIN 0009A. If CLIN 0009A is exercised, the Option Contract Period shall continue for a period of five (5) years from acceptance of the initially delivered system.”

CLIN 0010 has been expanded to include hardware, software, and networking components and related services under this Indefinite Delivery – Indefinite Quantity element.

CLIN 0011 is amended to add subCLIN 0011D Visualization/Data Engineer.

Note A is amended to add the following sentence: “The Reserve Funds are defined in Section C.1).”

Note A is also amended to add the following to the funding profile for the Base Contract Period:

“One Year Option Period
FY2010 - \$0.72 million”

Note E has been amended to delete mention of purchasing the HSMS during the first year of the Base Contract Period and Option Contract Period.

Note H has been added as follows:

“NOTE H - Furthermore, in addition to the items identified in Section B of this contract, the Government may, during the term of this contract, require goods and services not otherwise specifically identified, but within the scope of this contract. Should requirements arise, these additional goods and services will be negotiated under the Changes Clause of this contract.”

SECTION C

The following is a summary of the revisions to Section C. Because of the number of changes, a revised Section C, in its entirety is attached to this Amendment and supersedes Section C in Amendment 0002.

C.5.2.5, in the first sentence of the second paragraph, change from “workstreams 4-9” to “workstreams 4-6.”

C.5.2.7, second paragraph, Persistent Archive is defined.

C.5.4.3, first paragraph, the sentences “Note that workstreams 4 and 6 require all of the data used by workstreams 7-9. More specifically, the data required for workstreams 7, 8, and 9 have a large intersection with a subset of that required for workstreams 4 and 6.” has been deleted. The following language has been substituted: “The data required for workstreams 7, 8, and 9 have a 75% intersection with a subset of that required for workstreams 4 and 6.”

C.5.6.1, in the first line of the last paragraph of the subsection titled “Boulder, CO”, enter “at DSRC” between “equipment” and “will”

C.5.6.3, Princeton Subsection: Replace the paragraph with the following two paragraphs:

Princeton, NJ

“Effective October 2006, the Government will provide two offices for use by Contractor’s personnel who are responsible for system operation. These two offices will be occupied by the current Raytheon system support staff until the end of the contract on September 30, 2006. They are the large room adjacent to the Operators Room and an office across the hall. If the R&D Contractor requires additional office space and/or storage space beginning in October 2006 or requires office and/or storage space prior to October 1, 2006, it may construct offices on the hard pan in the southwest corner of the Computer Room as part of its facility proposal. It may construct these rooms in any portion of the hard pan space that was previously planned for offices as indicated in Figure 3. If the Contractor does not choose to use this hard pan for this purpose, it may use this non-raised floor for installation of equipment that does not require raised floor.

In addition to the two offices provided for personnel responsible for system operation, the Government will attempt to provide additional office space to other Contractor personnel on an as-needed and as-available basis.”

C.6.1.2, 7th paragraph, the following language has been added to the second sentence: “when compared to the proposed throughput”

C.6.1.2, 8th paragraph, the following language has been added to the end of the paragraph: “If the parties are unable to reach mutual agreement, the Government reserves unilateral right to determine changes to the HPCS workstream benchmarks and the Contractor agrees that it will comply subject to the Disputes clause.”

C.8.5.1, the following language added at the end of paragraph: “This plan shall be submitted to the Contracting Officer and COTR.”

C.8.5.3, the following language added at the end of paragraph: “This plan shall be submitted to the Contracting Officer and COTR.”

C.9.4, Additional R&D HPCS Augmentation, has been expanded to include system components. In addition, this section has been amended to include other changes.

C.9.5.4, Visualization/Data Engineer is added as follows:

C.9.5.4 Visualization/Data Engineer

NOAA may require professional engineering services in support of its HPC facilities. These services may be for Visualization, Graphics, or Data Engineering. Activities may include, but are not limited to the following:

- * Generation and manipulation of graphical products.
- * Data flow optimization.
- * Creating and using tools for accessing, manipulating, viewing and representing the data.
- * Data Conversion.
- * Metadata manipulation for downstream post-processing.
- * Data format evolution and porting.
- * End user support.

Section C.10, Amendment 0002 incorrectly changed the numbering scheme in both Appendix A – Details of current NOAA R&D HPCS and Appendix B – Available Government Facilities to read Section C.10. This Amendment correctly identifies Section C.10 as Appendix A and Section C.11 as Appendix B.

C.11.1.1, 2nd para., line 1: add “ 2a,” between “2,” and “3,”

C.11.1.1, add the following paragraph after the “BLDR-2” paragraph and just before “PRTN”:

“Figure 2a shows a revised room layout for BLDR-2 that seeks to address concerns expressed by Contractors in their questions as well as design requirements. The following changes have been made in the design:

- CRAC unit positioning changed (Opposing)
- Secondary egress installed
- XDO units moved to accommodate racks that may be up to 48 inches deep
- Full 4 foot “cold aisle” between the fronts of the HPC racks

C.11.1.1, under PRNT, change first sentence to read as follows: “Figure 3 shows the computer room layout for the current system, but with the following planned modification: move silos onto the northern hardpan.”

C.11.1.1, In the bullet list in the 2nd para. of PRTN, replace the third and fourth bullets (Conference Room / Office) with the following bullet:

- “Office for Contractor support personnel:

C.11.1.5, PRTN paragraph, 2nd thru 3rd line: Delete: “, although offices will occupy the rear floor space as shown in Figure 3”

C.11.1.6, PRTN paragraph, delete the last sentence (beginning with “Four (4) offices ...”) of the paragraph, and replace it with the following:

“Two of the offices will be available to the Contractor’s system support personnel beginning in October 2006. The Contractor may use the non-raised floor space in the southwest corner of the left hard pan to construct additional offices, use as storage space, and/or use for locating equipment that does not require raised floor. Prior to the end of the current Raytheon contract, half of this space (32’x18’) will be reserved for Raytheon use. The offices that were planned to be constructed (as indicated in Figure 3) on this hard pan space are now offered to the Contractor to use to construct offices and/or storage space or else for installing equipment that does not need to be located on raised floors. In addition, the larger Contractor room located on the loading dock side of the Operator Room will be left as is for contractor use as office space (available to the R&D Contractor after the current Raytheon contract ends) and not divided into two offices as previously planned.”

C.11.2.3, in 1st para. of PRTN, add the following specs at the end of the paragraph: “Rolling Load: 1200 lbs. (10 passes).”

C.11.2.3, in paragraph of Largo, the word “replacement” has been added to the third sentence. The third sentence is changed to read: “This replacement flooring would be rated...”

C.11.3.1, in 1st paragraph of PRTN, lines 11 and 12, change units from “kVA” to “kW” so it reads “1070 kW” in line 11, and “1430 kW” and “2500 kW” in line 12.

C.11.3.1, under PRTN, 2nd para., 2nd from last line: change unit from “kVA” to “kW” so it reads “1000 kW”.

C.11.3.1, under PRTN, 2nd para., last line, add the following at the end of the paragraph: “probably reflecting attempted start-up of chillers #1 and 3 together or operations during the previous Cray/SGI contract. The peak demand observed on the Main Building substation on March 28 was 512 kW.”

C.11.3.1, under PRTN, 3rd para., in the last sentence, make the following two changes: (1) Replace “A recent reading” with “The most recent”, and (2) replace “540 kVA” with “**654** kW on March 28”.

C.11.3.1, under PRTN, 4th para. 2nd line: Add the following parenthetical statement after “HPC equipment” and before the comma: “ (i.e., excluding facility infrastructure equipment, such as air handlers, that are operating in the Computer Room)”

C.11.3.2, under PRTN in the paragraph immediately following the table, make the following two changes: (1) in 1st line, add “the Princeton Complex’s monthly” between “containing” and “electric”; and (2) replace “cost per kWh” with “peak demand (in kW)”

C.11.3.3, Referring to bullets 1-5 in the bullet list after PRTN:

1st bullet: Make this (starting “Power Distribution...”) into a non-bullet item, i.e., remove the bullet so that the line starts in line with “PRTN”

2nd bullet (“United Power”): add the following at the end of the line: “, each containing 4 breaker panels, with each panel containing 42 slots”

3rd bullet (“Liebert”): add the following at the end of the line: “, containing 3 breaker panels, with each panel containing 42 slots”

4th bullet (“EPE”): add the following at the end of the line: “, containing 2 breaker panels, with each panel containing 42 slots”

C.11.3.3, Make the 5th bullet (starts with “UPS”) in the bulleted list under PRTN into a non-bullet item, i.e., remove the bullet so that the line starts in line with “PRTN”

C.11.3.3, in the 6th bullet under PRTN (for the 500-kVA UPS), add the following at the end of the line: “, Model No. ‘72-130104-00 EPS 6500/44, 66’ with Serial No. 69937-01 (Originally installed in 1997)”

C.11.3.3, in the 7th (and last) bullet under PRTN (for the 225-kVA UPS), add the following at the end of the line: “, Model No. ‘72-130101-01 EPS 6225/44, 66’ with Serial No. 200834-01 (Originally installed in 1998)”

C.11.4.1, in the 2nd from the last line of the 4th paragraph under PRTN, enter the following sentence after “chiller.”: “Recently, Princeton was able to operate both Chillers #1 and #4 together for a half-hour test; however, attempts to operate Chiller #1 and #3 continued to fail.”

C.11.4.1, at the end of the 5th paragraph under PRTN, enter the following sentence: “Since these facility changes will occur after the R&D contract is awarded, the Government intends to coordinate the changes with planned facility modifications proposed by the winning Contractor.”

C.11.4.2, under BLDR-2, change “Thirteen (13)” to read “Seventeen (17).”

C.11.6.2, enter the following sentence at the beginning of the PRTN paragraph: “Fire extinguishers are located at various locations throughout the Computer Room and in the Storage Room adjacent to the Loading Dock.”

C.11.7.1, in the 2nd line of the 2nd paragraph under PRTN, replace “there were” with “a review of operator logs showed”

C.11.7.2, replace the sentence in line 4-5 (starting with “The final ride-through...”) with the following sentences:

“The 16-minute duration for the 500-kVA UPS is due to one of the four wet-cell battery banks being over 4 years old; this bank is expected to be upgraded by the first week of April 2005, resulting in all of the batteries in this UPS being less than 6-months old. This upgrade should produce a ride-through time close to 25 minutes. The wet-cell batteries in the 225-kVA UPS are all less than 6 months old. Once the April 2005 HPCS installation is complete, the UPS capacities (at 386 and 109 kVA for the 500- and 225-kVA UPSs respectively on March 23) are expected to both be at maximum (80%) capacity, and the ride-through times are likely to be reduced somewhat. (Note: The PDUs are also expected to be at full capacity after the April 2005 installation is complete.)”

C.11.8.2, under BLDR-1 and BLDR-2, replace “cipher locks” with “proximity keypads.”

C.11.11, in the section “Available Raised Floor Space” in the table, change the entry for PRTN for October 2004 from “1900” to “900”

C.11.11, in the section “Available Non-Raised Floor Space” in the table, change the entries for PRTN as follows:

For October 2005, change “360” to “900”

For October 2006, change “360” to “2700”

C.11.11, under “Assumptions for Projections” in “Available Raised Floor Space:” for PRTN, change the assumptions as follows:

- Replace assumption (1.) with the following: “(1.) Oct. 2004 estimate reflects that the Storage Tek silos are still located on the raised floor.”

- Replace assumption (2.) with the following: “(2.) Oct. 2005 number is an estimate derived from the unoccupied raised floor space for the room layout as indicated in Figure 3a, which shows the assumed positions of systems and Storage Tek silos after the mid-contract installation is complete. (The actual square footage of free space is obviously subject to interpretation to account for obstructions such as room columns and ramps, size of equipment to be installed, etc.)”

- In assumption (3.), add the following at the end of the first sentence between “Raytheon contract” and the period: “, since this leased equipment will be removed at the end of the current contract”

C.11.11, under “Assumptions for Projections”, add a new subsection immediately before the subsection titled “Available Power:” as follows:

“Available Non-Raised Floor Space:

PRTN:

(1.) Oct. 2005 estimate assumes a common staging area of 360 sq. ft. on the non-raised floor adjacent to the exit to the loading dock plus an area of 18’x30’ on the left hand pan that would be available to the R&D Contractor for office space and storage. The remaining 18’x32’ of non-raised floor space is reserved for storage and work area until the end of the current Raytheon contract.

(2.) Oct. 2006 estimate assumes both the left and right hand pan areas of the Computer Room are available to the R&D Contractor, with the square footage shown including the UPS Room as well. As with the raised floor space, the timing for availability of non-raised floor space requires coordination with the current contractor to assure smooth transition from the previous contract to the new R&D contract.”

C.12, language is added to the PRTN site which stated “unless otherwise stated, all of the following GFE for Princeton will be available in October 2006.”

C.12, for PRTN GFE, under the heading “Hierarchical Storage Mgmt System”, in the 5th entry, which starts “SGI FC-Switch-16” change the quantity from “12” to “16”.

C.12, the following sentence is added immediately after the heading “Washington, DC” and before “Site Contrained GFE”: “All of the GFE listed in this subsection below will be available October 2006.”

SECTION E

The following is a summary of the revisions to Section E. Because of the number of changes, a revised Section E, in its entirety is attached to this Amendment and supersedes Section E in the RFP.

E.2.1, the following sentence is added to the first paragraph; “Acceptance testing is applicable to all systems and subsystems delivered under this contract.”

E.2.1, the word “also” has been added to the fifth sentence of the first paragraph. The sentence is changed to read as follows: “These tests may also be applied to replacement equipment, substituted equipment, modified equipment, and equipment supplied as remediation of any contractual shortfall.”

E.2.3.1, the following sentence has been added to the second paragraph: “The workstream performance will be tested during the acceptance test period.”

E.2.4, the third sentence is changed to read as follows: “The Government will attempt to perform these tests for the first time within the first 20 days of the acceptance test period for a subsystem.”

E.2.4, the following sentence is added at the end of the paragraph: “Should the first instance of the test not be performed within 20 days, the Government will extend the acceptance test period one day for each day of delay or forego the test entirely.”

E.2.5, first sentence is changed to read as follows: “The COTR or an appropriate designee will construct and maintain during the acceptance tests (described in Section E.2) a spreadsheet that shows all metrics designated by the acceptance test criteria and record all events, and the diagnosed causes, contributing to these results.”

E.3.1, the following sentence is added at the end of the paragraph: “If the parties are unable to reach mutual agreement, the Government reserves the unilateral right to determine the HPCS workstream benchmarks to be used for acceptance testing and the Contractor agrees that it will comply subject to the Disputes clause.”

SECTION H

The following is a summary of the revisions to Section H. Because of the number of changes, a revised Section H, in its entirety is attached to this Amendment and supersedes Section H in the RFP.

The numbering of Clauses H.19, H.20, and H.21 in the Table of Contents has been corrected.

H.9, TECHNOLOGY SUBSTITUTION PLAN, has been deleted in its entirety.

H.19, PAYMENT OF ELECTRIC UTILITY BILLS, multiple changes throughout this Clause.

SECTION J

J.1, BENCHMARK INSTRUCTIONS, has been revised in its entirety. Section J.1 from Amendment 0002 should be removed and replaced with the revised Section J.1 which is attached.

J.2, BENCHMARK PERFORMANCE RESULTS, has been revised in its entirety. Section J.2 from the RFP should be removed and replaced with the revised Section J.1 which is attached.

SECTION L

The following is a summary of the revisions to Section L. Because of the number of changes, a revised Section L, in its entirety is attached to this Amendment and supersedes Section L in the RFP.

L.4, is changed to read as follows: “The Government contemplates award of a fixed-price, lease contract resulting from this solicitation. Included in this Solicitation and resulting contract are indefinite quantity options for support services (CLIN 0011) and, workstreams, maintenance, network, compute, storage, software and workstations (CLIN 0010). If exercised, the workstreams, maintenance, network, compute, storage, software and workstations (CLIN 0010) will be acquired on a firm-fixed price basis and the support services (CLIN 0011) will be acquired on a labor-hour basis.”

L.5.7, second paragraph, item 2) is changed to read as follows: “A demonstration of the features of the architecture which supports the extrapolation of performance (if any) to the proposed system from the systems used in the LTD and to supply data for the RFP response.”

L.5.7, last paragraph, sixth sentence is changed to read: “If the Offeror is unable to successfully complete the LTD on the first day, the LTD will continue on the second day.”

L.6.1.1, Tab 3.2 change title of Tab from “Development Component” to “Interactive Component”.

L.6.1.1, Tab 5.3 – change to read “If not previously addressed in the responses to Tab 5.1, describe how remote users will access the R&D HPCS and specify expected response times that a typical remote user might experience during a typical interactive session.

L.6.1.1, TAB 7.1 – Change title to read “Tab 7.1 Reliability”.

L.6.2.5, Funding Profiles – Table II, right-hand column (“One-Year Options”) is revised to read “2010/2014”.

L.8, Facility Proposals - final paragraph, is amended to include “12. Physical Security”.

L.13, AMENDMENTS TO PROPOSALS, has been deleted in its entirety.

SECTION M

The following is a summary of the revisions to Section M. Because of the number of changes, a revised Section M, in its entirety is attached to this Amendment and supersedes Section M in the RFP.

M.1.5, First paragraph is changed to read as follows: “The following factors will be utilized in evaluating the proposed options. Evaluation of options will not obligate the Government to exercise any of the options.”

M1.5, second bullet is changed to read as follows:

- “Optional four year extension of the Base Contract Period, known as the “Option Contract Period”. The Option Contract Period will continue to provide the computational and associated resources necessary to support continued advances in environmental modeling capabilities and other high-performance computing system requirements that may arise within NOAA and at other partner agencies. Offerors must assume that overall system dependability and balance among the HPCS components will be

maintained, within the confines of the funding profile, during the option periods. The Option Contract Period will be evaluated based only upon the system performance level guarantees.”

M.3, first paragraph, first bullet, “Large-Scale Computing” is changed to read “Computing.”

M.3.1, Heading is changed from “Large-Scale Computing” to “Computing.” First sentence is changed to read as follows: “Factors used to evaluate computing are, in order of decreasing importance:”

M.3.1, first sentence of the first paragraph after the bullets is changed to read as follows: “Items used to evaluate Performance may include, but are not limited to, the Systems Life Throughput offered on the initial system, the workstream benchmark performance offered on the initial system, the results of the benchmark scaling study and the performance increment offered on upgrades during the Base Contract Period.”

M.3.1, second paragraph after bullet is changed to read as follows: “Items used to evaluate Reliability, Availability, and Support may include, but are not limited to, the availability level offered in the initial system, the capability of the failover hardware and software, the available features in the resource management software, batch queuing and scheduling software, load balancing software, and checkpointing software, the capability to operate and be repaired in degraded mode and offered training.”

2. This Amendment also responds to vendor’s questions received since issuance of the Solicitation. These responses are included as an attachment to this Amendment. NOTE: The questions and answers are also posted to the NOAA R&D HPCS web site at:

<http://rdhpcs.noaa.gov>

If there are any disparities between the questions and answers on the web site and this Amendment, this Amendment shall prevail. Answers to previous questions not provided with this Amendment, and any additional questions received will be responded to in a subsequent Amendment.

SCHEDULE

Item No.	Supplies/Services	Quantity	Unit	Unit Price	Amount